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Furthermore, in paragraph 4 of the Office Action, the Examiner states that Applicant's arguments with respect to claims 1, 3-6, 10-12, and 16-41 have been considered by are moot in view of the new ground(s) of rejection. However, no new grounds of rejection have been provided. Instead, in paragraphs 6-8 of the Office Action, the Examiner has repeated the previous rejections concerning anticipation by Martin et al. and unpatentability over Martin et al. in view of Johnson et al. These appear to be the same rejections which the Examiner stated were withdrawn in view of Applicant's previous amendments and remarks. Furthermore, the claims cited in these paragraphs are the originally filed claims and are not the claims currently pending.

In order to be responsive to the Office Action, Applicant has provided remarks concerning the patentability of the claims (as identified in paragraph 8 of this Office Action) over the same cited references. However, clarification concerning the apparent discrepancies between paragraphs 3 and 8 as well as paragraphs 5 and 8 is requested.

Rejection of Claims under 35 U.S.C. § 102

Claims 1-22 and 31-35 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Martin et al. (U.S. Patent Application Publication No. 2003/0191231).

In paragraph 8 (beginning at the top of page 3) of the Office Action, the Examiner repeats the rejection provided in the Office Action dated August 11, 2006 and included by reference in the previous Office Action dated April 19, 2007.

Applicant continues to respectfully disagree with the rejection of the cited claims. Regarding claims 1-21, claims 2, 7-9, and 13-17 have previously been cancelled, making the rejection of these claims moot. Regarding claims 1, 3-6, 10-12, and 18-21, claim 1 was previously amended in the Response submitted November 19, 2007 and recites a dispersant composition comprising an aqueous solvent and i) at least one non-ionic surfactant and ii) at least one polymer comprising at least one salt of a carboxylic acid group. The non-ionic surfactant is a polyalkylene oxide that is insoluble in water, and the polymer is soluble in

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water. As stated in the present application for this specific combination of components, "it may be said that the polymer acts as a dispersing or solubilizing agent for the water-insoluble non-ionic surfactant, thereby producing an aqueous solution or dispersion of the insoluble surfactant" (see paragraph [0021] of the present application). This dispersant composition is used to disperse a pigment in a liquid vehicle, thereby forming the pigment composition of the present invention as well as the aqueous coating composition of the present invention.

Applicant continues to believe that Martin et al. does not describe such a dispersant composition. While Martin et al. describes an aqueous composition which includes a crosslinkable polyester oligomer which may preferably contain a non-ionic water dispersing groups such as a polyalkylene oxide group, there is no disclosure, teaching or suggestion of the use of this oligomer in combination with a separate water soluble polymer, specifically a polymer comprising at least one salt of a carboxylic acid group which is soluble in water, to form a dispersant composition that can be used for dispersing a pigment. Rather, when describing how these polyester oligomers may be dispersed in water, Martin et al. states that the "polyester oligomer(s) normally do not require the use of an external surfactant when being dispersed into water" (see paragraph [0085]). Thus, in essence, Martin et al. teaches away from using additional surfactants in combination with the polyester oligomer, such as is specifically taught in the present application. Furthermore, while Martin et al. states that, while not required, surfactants and/or high shear can be used to assist in the dispersion of the polyester oligomer and various types of surfactants are described (see paragraph [0085]), none of these external surfactants are a polymer comprising at least one salt of a carboxylic acid group, particularly one that is soluble in water, as recited in present claim 1.

Thus, there is no disclosure, teaching, or suggestion in Martin et al. of a dispersant composition that can be used to form either a pigment composition or a coating composition in which both a polyalkylene oxide non-ionic surfactant that is insoluble in water and a polymer comprising at least one salt of a carboxylic acid group that is soluble in water are used in combination, as is recited in present claim 1. For at least this reason, Applicant believes present claim 1 is not anticipated by this reference.

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Furthermore, Applicant does not believe that Martin et al. would reasonably suggest the use of a polymer comprising at least one salt of a carboxylic acid group in a dispersant composition. In particular, while Martin et al. also states that the aqueous composition may further comprise a dispersed polymer such as Neocryl BT-24 acrylic emulsion polymer, Applicant continues to believe that such a polymer is not a second type of dispersant used in combination with the polyester oligomer in a dispersant composition. The only discussion in Martin et al. of the use of an additional surfactant in combination with the oligomer is that discussed above related to external surfactants. The description of the dispersed polymer(s) in Martin et al. does not relate to the external surfactants. Rather, the dispersed polymer(s) is an additional component in a coating composition. For example, Martin et al. specifically states that the aqueous composition of the invention may optionally but preferably include a polymer dispersed therein that is not a polyester oligomer (see paragraph [0088]). As noted by Martin et al., the "crosslinkable polyester oligomer(s) can thus be (and preferably is) combined with a dispersed polymer(s) to further improve the provision of a binder system for providing an aqueous composition with the desired balance of long open/wet edge time and reduced tack free time" (see paragraph [0092], emphasis added). Therefore, the dispersed polymer is not a dispersant used to help disperse the polyester oligomer but is rather an additional component of the described aqueous composition.

Thus, use of the dispersed polymer in Martin et al. relates to a coating composition and not to a dispersant composition, such as is recited in present claim 1. Applicant believes that this teaching of the use of an additional dispersed polymer in an aqueous composition would not have reasonably suggested to one of ordinary skill in the art that such a polymer could also have been used in combination with the polyester oligomer to form a dispersant composition.

Applicant therefore believes that the dispersant composition of present claim 1 is not anticipated by this aqueous composition of Martin et al.

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Furthermore, in the Response submitted on November 19, 2007, in order to more clearly describe Applicant's invention, claim 1 was amended to recite specific amounts of each of the components of the recited dispersant composition. Thus, claim 1 currently recites that the non-ionic surfactant is present in an amount of between about 3% and 25% based on the total weight of the dispersant composition, and the polymer comprising at least one salt of a carboxylic acid group is present in an amount between about 5% and 20% by weight based on the total weight of the dispersant composition. Applicant believes that these amounts further distinguish the dispersant composition of present claim 1 from the aqueous composition described in Martin et al. For example, Martin et al. states that, when an external surfactant is used to disperse the polyester oligomer in water, the amounts of these external surfactants are "preferably 0 to 15% by weight ... based on the weight of the crosslinkable polyester oligomer" (see the last sentence of paragraph [0085], emphasis added). These amounts are very different from those recited in present claim 1.

Applicant therefore believes that claim 1 is not anticipated by Martin et al. In addition, claims 3-6, 10-12, and 18-21, which depend directly or indirectly from claim 1, recite further embodiments of the present invention and, for at least the reasons discussed above, are also not anticipated by this reference.

Regarding claim 22, this claim was amended in the Response submitted November 19, 2007 and recites a pigment composition comprising a pigment and at least one dispersant composition comprising the components recited in claim 1. The pigment is a modified carbon product comprising a carbon product having attached at least one organic group. Since Martin et al. does not disclose a dispersant composition comprising the components of claim 1, for the reasons discussed above, this reference also does not disclose the pigment composition of claim 22. Furthermore, Martin et al. does not disclose, teach, or suggest a modified carbon product comprising a carbon product having attached at least one organic group. Applicant therefore believes that claim 22 is not anticipated by this reference.

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Regarding claims 31-35, claim 31 was amended in the Response submitted November 19, 2007 and recites an aqueous coating composition comprising an aqueous vehicle comprising a water-based resin and an aqueous solvent, at least one pigment, and at least one dispersant composition comprising the components recited in claim 1. The pigment is a modified carbon product comprising a carbon product having attached at least one organic group. Since Martin et al. does not disclose a dispersant composition comprising the components of claim 1, for the reasons discussed above, this reference also does not disclose the aqueous coating composition of claim 31. Furthermore, Martin et al. does not disclose, teach, or suggest a modified carbon product comprising a carbon product having attached at least one organic group. Applicant therefore believes that claim 31 is not anticipated by Martin et al. In addition, claims 32-35, which depend directly from claim 31, recite further embodiments of the present invention and, for at least the reasons discussed above, are also not anticipated by this reference.

Therefore, Applicant believes that claims 1-22 and 31-35 are not anticipated by Martin et al. and respectfully request that the rejection of these claims be withdrawn.

Rejection of Claims under 35 U.S.C. § 103

Claims 23-30 and 36-41 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin et al. (U.S. Patent Application Publication No. 2003/0191231) in view of Johnson et al. (U.S. Patent No. 5,837,045).

In paragraph 8 (beginning at the bottom of page 6) of the Office Action, the Examiner repeats the rejection provided in the Office Action dated August 11, 2006 and included by reference in the previous Office Action dated April 19, 2007.

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Applicant continues to respectfully disagree with the rejection of the cited claims. Regarding claims 23-30, claim 23 was previously cancelled, making the rejection of this claim moot. Claims 24-30 depend directly or indirectly from claim 22, which was amended in the Response submitted November 19, 2007 to include the features of claims 23. Thus, claim 22 recites a pigment composition comprising a) at least one pigment, and b) at least one dispersant composition. The pigment is a modified carbon product comprising a carbon product having attached at least one organic group.

As discussed in more detail above, Applicant believes that Martin et al. does not disclose, teach, or suggest the pigment composition of claim 22. Rather, Martin et al. describes an aqueous coating composition which includes a crosslinkable polyester oligomer along with various additional components. While this reference describes that the aqueous coating composition may further include a generic pigment (see paragraph [0150]), there is no disclosure, teaching, or suggestion of a dispersant composition comprising the recited components used in combination with the generic pigment. Since there is no dispersant composition described, as in the present invention, this is not the pigment composition of present claim 22.

Furthermore, Applicant believes that, if one of ordinary skill in the art were to replace the generic pigment described in Martin et al. with a pigment from any other reference, including Johnson et al., the result would still comprise the same components as in Martin et al. Since there is no dispersant composition in Martin et al. that comprises the components recited in present claim 22, the resulting combination would therefore also not comprise this dispersant composition. This is not the pigment composition of claim 22.

In addition, Johnson et al. relates to a modified colored pigment comprising a pigment having attached at least one organic group, wherein the organic group comprises at least one ionic group, ionizable group, or mixture thereof. The pigment can be any of a wide variety of different conventional colored pigments, and examples of these colored pigments are disclosed in Johnson et al. (see column 2, line 47 to column 3, line 9). However, there is no disclosure, teaching, or suggestion in Johnson et al. of a modified carbon product comprising a carbon

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product having attached at least one organic group, as recited in present claim 22. Only colored pigments are disclosed, and these are not carbon products. Therefore, even if one of ordinary skill in the art were to combine these references, the resulting combination would not be the pigment composition recited in present claim 22.

Applicant therefore believes that the pigment composition of claim 22 is patentable over Martin et al. in view of Johnson et al. since these references, in combination, do not teach or suggest a pigment composition comprising a dispersant composition having the recited components and comprising a modified carbon product comprising a carbon product having attached at least one organic group. Furthermore, claims 24-30, which depend directly or indirectly from claim 22, recite further embodiments of the present invention and, for at least the reasons discussed above, are also patentable over this combination of references.

Regarding claim 36-41, claim 36 was previously cancelled, making the rejection of this claim moot. Claims 37-41 depend directly from claim 31 which was amended in the Response submitted November 19, 2007 to include the features of claim 36. Thus, claim 31 recites an aqueous coating composition comprising a) an aqueous vehicle comprising a water-based resin and an aqueous solvent, b) at least one pigment, and c) at least one dispersant composition. The pigment is a modified carbon product comprising a carbon product having attached at least one organic group.

As discussed in more detail above, Applicant believes that Martin et al. does not disclose, teach, or suggest the aqueous coating of claim 31. Rather, Martin et al. describes an aqueous coating composition which includes a crosslinkable polyester oligomer along with various additional components. While this reference describes that the aqueous coating composition may further include a generic pigment (see paragraph [0150]), there is no disclosure, teaching, or suggestion of a dispersant composition comprising the recited components used in combination with the generic pigment. Since there is no dispersant composition described, as in the present invention, this is not the aqueous coating composition of present claim 31.

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Furthermore, Applicant believes that if one of ordinary skill in the art were to replace the generic pigment described in Martin et al. with a pigment from any other reference, including Johnson et al., the result would still comprise the same components as in Martin et al. Since there is no dispersant composition in Martin et al. that comprises the components recited in present claim 31, the resulting combination would therefore also not comprise this dispersant composition. This is not the aqueous coating composition of claim 31.

In addition, Johnson et al. relates to a modified colored pigment comprising a pigment having attached at least one organic group, wherein the organic group comprises at least one ionic group, ionizable group, or mixture thereof. However, as discussed in more detail above, there is no disclosure, teaching, or suggestion in Johnson et al. of a modified carbon product comprising a carbon product having attached at least one organic group, as recited in present claim 31. Therefore, even if one of ordinary skill in the art were to combine these references, the resulting combination would not be the aqueous coating composition recited in present claim 31.

Applicant therefore believes that the aqueous coating composition of claim 31 is patentable over Martin et al. in view of Johnson et al. since these references, in combination, do not teach or suggest a pigment composition comprising a dispersant composition having the recited components and comprising a modified carbon product comprising a carbon product having attached at least one organic group. Furthermore, claims 37-41, which depend directly from claim 31, recite further embodiments of the present invention and, for at least the reasons discussed above, are also patentable over this combination of references.

Therefore, Applicant believes that claims 23-30 and 36-41 are patentable over Martin et al. in view of Johnson et al. and respectfully request that the rejection of these claims be withdrawn.

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Conclusion

In view of the foregoing remarks, Applicant believes that this application is in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would further expedite the prosecution of the subject application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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